

REMARKS

Claims 1-20 are now in the application. By this Amendment, claim 1 has been amended. Support for the amendment to claim 1 is found at least at page 7, lines 6-9, of the specification. Claims 3-11 and 13-20 have previously been withdrawn by the Examiner. No new matter has been added by this Amendment.

Applicants appreciate the courtesies extended by Examiner Frazier and Examiner Landau to Applicants' representative during the January 6, 2009 personal interview and by Examiner Frazier during the February 17, 2009 telephone interview. The following remarks constitute Applicants' separate Summary of the Substance of Interview.

During the February 17 telephone interview, Examiner Frazier stated that she will enter and consider a Supplemental Amendment to the Response filed on January 5, 2009.

In addition to the arguments provided in the January 5, 2009 Response, Applicants respectfully submit that the pending application is in condition for allowance for at least the reasons set forth below.

Claims 1, 2 and 12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,827,508 to Tanner et al. in view of U.S. Patent No. 4,640,943 to Meguro et al. and further in view of U.S. Patent No. 5,939,518 to Mazo et al.

Tanner suggests using silicones as a preferred coating for nano-particular zinc oxide. In particular, Tanner suggests, at col. 7, lines 30-34, the product Z-Cote® HP1, which is a zinc oxide that has been chemically reacted with a dimethicone, as the preferred zinc oxide. Tanner fails to suggest using a polyaspartic acid coating to decrease the particle size of the zinc oxide particles. Especially, there is no suggestion of using polyaspartic acid for manufacturing zinc oxide particle size in the range of from 10 to 200 nm.

Meguro suggests using N-acetylated amino acids as surface modifiers for inorganic pigments and fillers. Meguro's coated inorganic pigments and fillers are of a much bigger size

than the metal oxide particles in accordance with claim 1. This is evident from Meguro's disclosure in col. 7 line 65 to col. 8 line 27, where Meguro describes possible coating processes for pigment and fillers, having an average particle size of 0.1 to 100 μm . By such processes it is not possible to produce coated zinc oxide particles with an average diameter of from 10 to 200 nm.

Moreover, throughout the entire disclosure, Meguro uses the terms "pigment" and "filler." For example, at col. 5, lines 1-6, Meguro suggests: "On the other hands, when these inorganic materials are used as a component in makeup cosmetic;" and at col. 6, lines 58-61: "the modified inorganic filler or powder of the present invention can be used only or with other powders in the preparation of cosmetics, with satisfactory cosmetic properties being obtained."

At col. 6, lines 62-68, Meguro enumerates the cosmetic compositions in which the coated pigments or fillers are being used: "Cosmetic formulations in which the surface modified inorganic powder of the present invention can be used include face powders, paste powders, solid powders, body powders, baby powders, antihidrotics, foundations, tooth pastes, eye shadow, rouge and the like. In addition, cosmetic formulations also include those which already contain powders therein."

Further, at col. 7, lines 27-29, Meguro suggests: "The shape and size of these pigment particles are not particularly limited." However, there is no suggestion in Meguro for the use of inorganic particles of sufficiently small sizes to enable the preparation of transparent cosmetic compositions.

The Office Action of September 5, 2008 asserts, at page 4, line 21 to page 5, line 2: "However, Mazo et al. teach that polyaspartates are becoming increasingly useful as additives for cosmetics and personal care products (col. 1, lines 14-17), and having "desired high molecular weight" (col. 1, lines 41-42), namely M_w , in the range of 10,575- 17,231 (col. 5, lines 28 - 48).

However, this is not a suggestion of using polyaspartic acid with a molecular weight in the range of 1000 to 7000 for the manufacture of coated nano-particular metal oxides.

The following experimental results underline the unexpected and advantageous effect of using polyaspartic acid of the molecular weight as claimed compared to coatings with polyaspartic acid of higher molecular weight:

Molecular weight [g/mol]	Average particle size [nm]
ca. 2600	ca. 137
ca. 4000	ca. 172
ca. 5800	ca. 170
ca. 25,000	ca. 590

Applicants offer to provide the experimental data set forth above in the form of a verified statement upon request by the Examiner.

Claims 1 and 2 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0033270 to Kropf et al. in view of Mazo.

As appreciated by the Examiner, Kropf fails to suggest polyasparagine acid with molecular weight M_w of from 1000 to 100,000, as recited in original claim 1, or of from 1000 to 7000, as recited in pending claim 1. The Office Action relies on Mazo for curing the deficiencies of Kropf.

Kropf suggests hygiene products containing ZnO particles that are modified with organic compounds, such as the particularly preferred stearic acid. In paragraph [0048] Kropf suggests

polyaspartic acid from among a list of other modifiers without recognizing any particular benefits of this compound. Specifically, Kropf does not recognize any benefits of using polyaspartic acid having a molecular weight M_w of from 1000 to 7000 or that use of polyaspartic acid with that molecular weight results in the production of coated particles with an average particle size of less than 200 nm, as set forth in the above table.

During the January 6 personal interview, Examiner Frazier asserted that Mazo suggests, at Table II, polysuccinimide with a molecular weight of from 10,575 to 17,231, which can be hydrolyzed to polyaspartate. Further, Examiner Frazier stated that a skilled artisan would have combined Mazo with either Kropf or Tanner and Meguro because high molecular weights of polyaspartic acid are desired as dispersants for cosmetics. Applicants' representative argued that there is no suggestion or rationale set forth in Mazo to use polyaspartate with a specific molecular weight for nanoparticulate metal oxides. Mazo is directed to a method of preparing polysuccinimide by a catalytic reaction. Mazo further suggests that the experimental conditions can be varied to vary the molecular weight of polysuccinimide. However, Mazo fails to suggest that a particular molecular weight is preferable for any particular application. No agreement was reached during the interview. However, Examiners Frazier and Landau stated that they would review any response to the September 5, 2008 Office Action in light of the arguments presented during the personal interview.

In addition, Applicants respectfully submit that Mazo teaches away from the claimed subject matter because Mazo suggests a desirable high molecular weight in the range of from 10,575 to 17,231.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Further to the Petition for a one month Extension of Time that was filed with the requisite fee on January 5, 2009 in this application, Applicants concurrently herewith submit the requisite fee of \$980 for a Petition for a second month and a third month Extension of Time. Applicants believe no additional fee is due with this response. However, if any such additional fee is due,

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please charge our Deposit Account No. 22-0185, under Order No. 12810-00346-US1 from which the undersigned is authorized to draw.

Dated: February 25, 2009

Respectfully submitted,

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